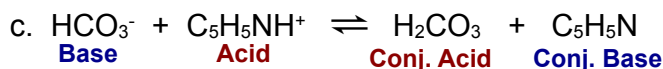
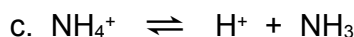


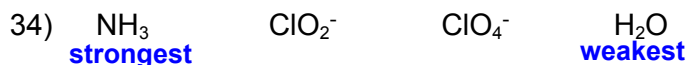
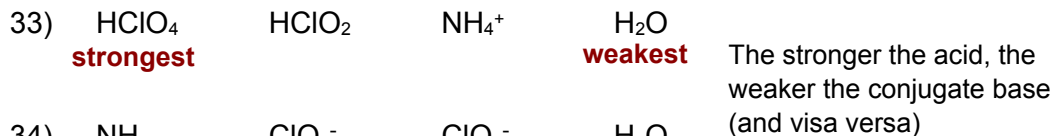
Questions 2, 27, 29, 31-34, 126

- Ammonia is always a weak acid. It's concentration also depends on how many molecules are dissolved in water.



- 31) a. HClO_4 - strong acid b. HClO - weak acid
c. H_2SO_4 - strong acid d. H_2SO_3 - weak acid

- 32) a. Beaker B - HNO_3 is a weak acid so it ionizes slightly.
b. Beaker A - HNO_3 is a strong acid so it ionized (almost) completely.
c. A (HCl is strong) d. B (HF is weak) e. B (acetic acid is weak)



- 126) Conjugate acid-base pairs differ by a single H^+ ion.
- a. True
 - b. False H_2SO_4 and HSO_4^- are a conjugate pair
 HSO_4^- and SO_4^{2-} are a conjugate pair
 - c. True
 - d. True